

#### **SDI Review Form 1.6**

| Journal Name:            | Current Journal of Applied Science and Technology  |
|--------------------------|--|
| Manuscript Number:       | Ms_CJAST_48284   |
| Title of the Manuscript: | Enhanced Biodegradation of Degreaser Using Pseudomonas and Bacillus Species in Fresh Water Ecosystem |
| Type of the Article      | Original Research Article  |

#### General guideline for Peer Review process:

This journal's peer review policy states that <u>NO</u> manuscript should be rejected only on the basis of '<u>lack of Novelty'</u>, provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

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## SDI Review Form 1.6

#### **PART 1: Review Comments**

|                               | Reviewer's comment  | 1  |
|-------------------------------|---|----|
|                               |   | 1  |
|                               |   | 1  |
| Compulsory REV/ISION commonts | Abstract  | -  |
| Compuisory REVISION comments  | Abstract<br>Aim: Papillus and Papudamanas should be italized  | 1  |
|                               | Aim. Dacinus and Pseudomonas should be italized.  | İ. |
|                               | Study design: this part did not snow any kind of statistical design used by authors. It should be rewritten.                                  | İ. |
|                               | Place and duration of studies: where is the duration of study?  | İ. |
|                               | Methodology: the bioremediation was monitored at which temperature?   | 1  |
|                               | "Five species of bacteria: E. coli sp, Micrococcus, Citrobacter, Bacillus, and Pseudomonas species and four fungal species: Penicillium,      | İ. |
|                               | Mucor, Aspergillus and Rhizopus species were isolated and identified as hydrocarbon utilizing bacterial and fungal" is a result not           | İ. |
|                               | methodology   | İ. |
|                               | This sentence also need to be rewrite as "Five bacterial' strains belonging to E. coli, Micrococcus, Citrobacter, Bacillus and                | İ. |
|                               | Pseudomonas species and four fungi strains belonging to"  | İ. |
|                               | Results: give the strain who showed the best degradability percentage, the best substrate and the interaction effect of strain on             | İ. |
|                               | degradability.  | İ. |
|                               | Conclusion: should be rewrite as "The results revealed that Bacillus species have more degradability potential than Pseudomonas               | 1  |
|                               | species for both Aquabreak and Rigwash. These results also indicated the low biodegradation potential of Rigwash in fresh                     | İ. |
|                               | Ecosystem".   | İ. |
|                               | Line 44. ref style is not good, and remove capital letter on degreasers   | 1  |
|                               | Line 46 to 50. added ref  | 1  |
|                               | Line 57 to 58. The aim is not corrected. Because at the beginning you are not sure and you cannot affirm that only Pseudomonas and            | 1  |
|                               | Bacillus will be active.  | 1  |
|                               | Line 58. Remove capital letter of species   | 1  |
|                               | Line 62. Start by presenting the study area. Then give necessary details on sample collection process in order to make the study              | 1  |
|                               | reproducible by other researchers   | 1  |
|                               | Line 65. Why test organisms are Pseudomonas and Bacillus? if so Where do you get the other bacterial and fungal species you cite in           | 1  |
|                               | the abstract  | 1  |
|                               | Line 66. Added full stop after ref  | 1  |
|                               | Line 67. Information on culture media used like manufacturer and others, which volume of nutrient agar was introduced in plates?              | 1  |
|                               | Line 68. Added full stop after 24 hours   | 1  |
|                               | Line 32 to 74. Civing that isolation was not performed on specific culture media, authors should bring information on which biochemical       | 1  |
|                               | test they did   | 1  |
|                               | Line 77. Which volume of putrient broth was used in inequlation process?  | 1  |
|                               | Line 21. In 0.5 MoEarland standard correspond to 20 to 200 colonics?  | 1  |
|                               | Line 61. IS 0.5 Michananu Standard correspond to 50 to 500 colonies?  | 1  |
|                               | Sometime there are spaces between number and unit and in other place there are no spaces, uniformize it.                                      | 1  |
|                               | Line 84 to 88. Why authors didn't used sterile ireshwater? With raw ireshwater interaction with endogenous flora of water could result in     | 1  |
|                               | improvement or reduction their potential, there is a lack of information regarding inoculation process and inoculum volume used. This         | 1  |
|                               | experiment described like that is not reproducible.   | 1  |
|                               | Line 93 to 97. You are working with a specific culture (two strain), why authors didn't follow the growth kinetic of these two strains during | 1  |
|                               | bioremediation? what is the interest to follow the growth of other microorganisms?  | 1  |
|                               | Line 102 to 132. Protocols were poorly writing. Authors have to rewrite this part in a scientific manner. also used edit equation (line       | l  |
|                               | 125).   | l  |
|                               | Line 139. From 10 <sup>-3</sup> to which dilution???  | l  |
|                               | Line 145. Use edit equation   | l  |
|                               | Line 151. 250 mg or µg of tetracycline?   | l  |
|                               | Line 152. Why 35 C for 3 days for fungal? why not 25 C for 5 days? And why authors decide to count only fungal spores and not                 | l  |
|                               | yeast colonies?   |    |

## **Author's comment** (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)

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|                           | Line 154. Use edit equation  |  |
|---------------------------|--|--|
|                           | Line 159. Why only 10 <sup>-2</sup> dilution not others?   |  |
|                           | Line 161. Provide filter paper pore size   |  |
|                           | Line 172. Where is the statistical analyses part of the work?  |  |
|                           | Line 174. "of strains isolated from freshwater samples collected at" is better than "of the test isolates used for the enhance           |  |
|                           | biodegradation of the Degreasers (Aquabreak and Rigwash)"  |  |
|                           | Line 177. Specify what + and – refer to, and what VP or Mr means   |  |
|                           | Line 180. pH is poorly written   |  |
|                           | Line 181. The pH-meter not the meter   |  |
|                           | Line 183 to 184. Your tentative discussion is not good. rewrite  |  |
|                           | The results regarding isolation and identification, there are not information about the number of strain isolate, the number which have  |  |
|                           | shown specific characteristic belonging to a specific genus? authors have not commented their results, no interpretation, and no         |  |
|                           | discussion. This section has to be rewrite.  |  |
|                           | More important, authors cannot talk of species in this work, because identification carried out is at genus level, not at species level. |  |
|                           | Line 178 to 184. Same as previous, results are not commented. no interpretation, and no discussion. all this part also has to be rewrite |  |
|                           | by authors.  |  |
|                           | Line 194 to 198. No comment of result, no interpretation, authors seem like there are no difference in activities between strains,       |  |
|                           | between the two chemicals the table 2 is poorly drawing. Authors have done two replications of tests, where are standard deviation?      |  |
|                           | authors also have to perform a Duncan test in order to see the statistical significant difference between the responses measured the     |  |
|                           | strain and the time.   |  |
|                           | Line 208 to 217. where is fig 3 and 4? why directly fig 5,6 and 7? same comments as previous regarding interpretation, comparison        |  |
|                           | between strain, chemical, time, discussion of results. for fig 5,6,7 8 used Log cfu/mL to draw curves. This section has to be rewrite.   |  |
|                           | Line 249 to 262. How authors identified Enterobacter, Micrococcus and fungi like Aspergillus, Penicillium, Rhyzopus or Mucor? there      |  |
|                           | are no methodology and no results regarding that identification? This section has to be rewrite.   |  |
|                           | Line 264 to 270. same comments as previous regarding interpretation, comparison between strain, chemical, time, discussion of            |  |
|                           | results. This section also has to be rewrite.  |  |
|                           | Line 297. not bacillus species, but isolate belonging Bacillus genera.   |  |
|                           | Conclusion is not good. Authors have to rewrite it, and highlighted all important results obtained in the study.                         |  |
|                           | Reference 1, reference 2 and reference 4 are writing differently, choose the one recommended by the journal and harmonize.               |  |
| Minor REVISION comments   |  |  |
| Optional/General comments |  |  |
|                           |  |  |

## <u>PART 2:</u>

|  | Reviewer's comment  | Author's comment (if agreed<br>highlight that part in the manu |
|--|---|--|
|  |   | nis/ner teeaback here)   |
|  | (If yes, Kindly please write down the ethical issues here in details) |  |
| Are there ethical issues in this manuscript? |   |  |
|  |   |  |

### **Reviewer Details:**

| Name:                            | Mouafo Tene Hippolyte |
|----------------------------------|-----------------------|
| Department, University & Country | Cameroon              |

d with reviewer, correct the manuscript and script. It is mandatory that authors should write